

Appl. No. 09/857,433
Amendment dated: September 15, 2005
Reply to OA of: June 17, 2005

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claims 1-23(cancelled).

24(previously presented). In a method for assaying homocysteine concentration in a biological fluid sample, said method comprising the steps of;

- i) contacting said biological fluid sample with homocysteine desulphurase (HDS) whereby to generate alpha-ketobutyrate,
- ii) generating a signal corresponding to said alpha-ketobutyrate,
- iii) subsequently assessing the thus-generated signal and
- iv) relating the assessed signal to the homocysteine concentration in said biological fluid sample;

wherein the improvement comprises enhancing the signal to noise ratio by means of contacting said biological fluid with a reducing agent, prior to step i), subsequently with HDS, in step i), and with an agent which binds, oxidises or renders inactive said reducing agent after step i) and before step ii).

Claims 25-29(cancelled).

30(previously presented). The method as claimed in claim 24, said method further comprising at least one method selected from;

adding an aqueous liquid to a lyophilisate comprising HDS and at least one cryoprotectant or lyoprotectant, whereby to provide a liquid reagent and contacting said biological fluid sample with said liquid reagent, wherein said lyophilisate is formed in the substantial absence of any thiol-containing cryoprotectants or lyoprotectants;

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treating said biological fluid sample with an agent which serves to deactivate pyruvates before contacting with said HDS;

contacting said biological fluid sample with and immobilised HDS under conditions whereby said homocysteine binds to said HDS but does not react, whereby to form bound homocysteine and separating said bound homocysteine from the remainder of said biological sample; and

filtering said biological fluid sample through a size exclusion filter and centrifuging, whereby to remove pyruvates, before contacting said biological fluid sample with said HDS.

Claims 31-32(canceled).

33(previously presented). The method as claimed in claim 30 wherein said method comprises;

contacting said biological fluid with a reducing agent, subsequently with HDS and with an agent which binds, oxidizes or renders inactive said reducing agent after being contacted with said HDS and before generating said signal corresponding to said alpha-ketobutyrate;

adding an aqueous liquid to a lyophilisate comprising HDS and at least one cryoprotectant or lyoprotectant, whereby to provide a liquid reagent and contacting said biological fluid sample with said liquid reagent, wherein said lyophilisate is formed in the substantial absence of any thiol-containing cryoprotectants or lyoprotectants; and

treating said biological fluid sample with an agent which serves to deactivate pyruvates before contacting with said HDS.

34(previously presented). The method as claimed in claim 33 wherein said liquid reagent is an aqueous liquid containing homocysteine desulfurase, a thiol-reducing reagent, and a proteinaceous or non-proteinaceous stabilizer.

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Claims 35-43(canceled).